

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1                   1.       (Currently amended) A computer-implemented method of committing a  
2 transaction to a database, the method comprising:  
3                   receiving, at ~~[[a]] one or more~~ computer systems ~~hosting a database management~~  
4 ~~system that manages the database~~, information defining an occurrence in one or more database  
5 applications as a business event that, upon occurrence, causes ~~[[the]] a~~ database management  
6 system to intercept database transactions before the database transactions are committed to  
7 databases provided by the database management system, the database transactions representative  
8 of the business event and instantiated between the one or more database applications and the  
9 database management system ~~and generate from data identified in the database transaction an~~  
10 ~~electronic record that requires an electronic signature;~~  
11                   receiving, at the one or more computer systems, ~~information an electronic record~~  
12 definition defining one or more fields ~~for the data identified in the database transaction to be~~  
13 ~~stored in the~~ to include in electronic records automatically generated from data in the database  
14 transactions representative of the business event, the electronic record definition requiring the  
15 electronic records to have at least one electronic signature;  
16                   receiving, at the one or more computer systems, information that maps data from  
17 underlying database tables associated with the database transactions to at least some of the one or  
18 more fields defined in the electronic record definition;  
19                   storing, in a storage device associated with the one or more computer systems, the  
20 electronic record definition in association with the business event based on the information that  
21 maps data from underlying database tables associated with the database transactions to at least  
22 some of the one or more fields defined in the electronic record definition;

23 detecting, at the one or more computer systems, a database transaction between a  
24 database application and the database management system;

25 determining, at the one or more computer systems, that the database transaction  
26 satisfies an occurrence condition of the business event and intercepting transaction data from the  
27 database transaction with the one or more computer systems prior to the database management  
28 system committing the database transaction to ~~[[the]]~~ a database of the database management  
29 system ~~based on the application event monitored by the computer system that is triggered by the~~  
30 ~~database transaction;~~

31 ~~automatically~~ creating an electronic record at the one or more computer systems  
32 from the intercepted transaction data prior to the database management system committing the  
33 database transaction to the database according to the electronic record definition associated with  
34 the business event and the information that ~~[[a]]~~ maps~~[[ping]]~~ ~~between the data from underlying~~  
35 database tables associated with the database transactions to the at least some of the one or more  
36 fields defined in the electronic record definition;

37 storing, in a storage device associated with the one or more computer systems, the  
38 electronic record separately from the transaction data from the database transaction;

39 executing a rule associated with the ~~application~~ business event at the one or more  
40 computer systems to determine whether an electronic signature is required to connote review of  
41 the electronic record created from the intercepted transaction data in order for the database  
42 management system to commit the database transaction to the database;

43 requesting the electronic signature using the one or more computer systems prior  
44 to the database management system committing the database transaction to the database based on  
45 a determination that an electronic signature is required; and

46 committing the database transaction to the database using the one or more  
47 computer systems in response to receiving the electronic signature.

1 2. (Original) The method of claim 1 wherein the electronic record comprises  
2 data generated from multiple tables of the database.

1                   3.       (Original) The method of claim 1 wherein the electronic record is stored  
2 in a common repository of electronic records that provides an audit trail that cannot be altered or  
3 disabled by users of the database.

1                   4.       (Previously presented) The method of claim 1 wherein the electronic  
2 record is stored as data in a character large object (CLOB) format.

1                   5.       (Previously presented) The method of claim 4 wherein the data comprises  
2 a well-formed XML document stored within a column of a database table.

1                   6.       (Previously presented) The method of claim 5 wherein XML fields of the  
2 data are filled with the transaction data based on a predefined mapping of a data type definition  
3 to multiple data sources.

1                   7.       (Previously presented) The method of claim 1 further displaying at least  
2 some of the transaction data in the electronic record on a computer display based on the  
3 determination that an electronic signature is required.

1                   8.       (Previously presented) The method of claim 7 wherein the transaction  
2 data in the electronic record is displayed according to a predefined layout set forth in an XSL  
3 style sheet associated with data comprising a copy of the electronic record as displayed, wherein  
4 the data is stored within a column of a database table.

1                   9.       (Previously presented) The method of claim 1 further comprising  
2 obtaining and verifying the electronic signature.

1                   10.      (Original) The method of claim 1 wherein the rule requires a plurality of  
2 different electronic signatures and wherein, if execution of the rule results in a determination that  
3 a plurality of electronic signatures are required, requesting the plurality of electronic signatures  
4 prior to committing the data to the database.

11. (Previously presented) The method of claim 9 wherein, if the electronic signature is rejected or otherwise cannot be obtained, the database transaction is rolled-back and not committed to the database.

12. (Currently amended) A computer system that manages electronic records stored in a database, the computer system comprising:

a processor; and

a computer-readable memory coupled to the processor, the computer-readable memory storing a set of instructions executable by the processor to:

receive information defining an occurrence in one or more database applications as a business event that, upon occurrence, causes ~~the processor a database management system~~ to intercept database transactions before the database transactions are committed to databases provided by the database management system, the database transactions representative of the business event and instantiated between the one or more database applications and [[a]] the database management system associated with a database and generate an electronic record that requires an electronic signature from data identified in the database transaction;

receive ~~information an~~ electronic record definition defining one or more fields ~~for the data identified in the database transaction to be stored in the~~ to include in electronic records automatically generated from data in the database transactions representative of the business event, the electronic record definition requiring the electronic records to have at least one electronic signature;

receive information that maps data from underlying database tables associated with the database transactions to at least some of the one or more fields defined in the electronic record definition;

store the electronic record definition in association with the business event based on the information that maps data from underlying database tables associated with the database transactions to at least some of the one or more fields defined in the electronic record definition;

26 detect a database transaction between a database application and the  
27 database management system;  
28 determine that the database transaction satisfies an occurrence condition of  
29 the business event and intercept transaction data from the database transaction initiated between  
30 the one or more database applications and the database management system prior to the database  
31 management system committing the database transaction to ~~[[the]]~~ a database of the database  
32 management system ~~based on the application event monitored by the processor that is triggered~~  
33 ~~by the database transaction;~~  
34 create an electronic record from the intercepted transaction data prior to  
35 the database management system committing the database transaction to the database according  
36 to the electronic record definition associated with the business event and the information that  
37 [[a]] maps[[ping]] ~~between the~~ data from underlying database tables associated with the database  
38 transactions to the at least some of the one or more fields defined in the electronic record  
39 definition;  
40 store the electronic record separately from the transaction data from the  
41 database transaction;  
42 execute a rule associated with the ~~application~~ business event to determine  
43 whether an electronic signature is required to connote review of the electronic record created  
44 from the intercepted transaction data in order for the database management system to commit the  
45 database transaction to the database; and  
46 request the electronic signature prior to the database management system  
47 committing the database transaction to the database based on a determination that an electronic  
48 signature is required; and  
49 commit the database transaction to the database in response to receiving  
50 the electronic signature.

1 13. (Original) The computer system of claim 12 wherein the electronic record  
2 comprises data generated from multiple tables of the database.

1                   14.     (Original) The computer system of claim 12 wherein the electronic record  
2 is stored in a common repository of electronic records that provides an audit trail that cannot be  
3 altered or disabled by users of the system.

1                   15.     (Previously presented) The computer system of claim 12 wherein the  
2 electronic record comprises data in a character large object (CLOB) format.

1                   16.     (Previously presented) The computer system of claim 15 wherein the data  
2 comprises a well-formed XML document stored within a column of a table stored in the  
3 database.

1                   17.     (Original) The computer system of claim 16 wherein fields of the  
2 electronic record are filled with the transaction data based on a predefined mapping of a data  
3 type definition to multiple data sources.

1                   18.     (Previously presented) The computer system of claim 12 wherein the  
2 processor is further operative with the computer program to obtain and verify the electronic  
3 signature.

1                   19.     (Currently amended) A computer-readable storage medium ~~configured to~~  
2 storing[[e]] computer-executable code for managing electronic records stored in a database, the  
3 computer-readable storage medium comprising:

4                   code for receiving information defining an occurrence in one or more database  
5 applications as a business event that, upon occurrence, causes a database management system to  
6 intercept database transactions before the database transactions are committed to databases  
7 provided by the database management system, the database transactions representative of the  
8 business event and instantiated between the one or more database applications and [[a]] the  
9 database management system ~~associated with the database to be intercepted and an electronic~~  
10 ~~record that requires an electronic signature to be generated from data identified in the database~~  
11 ~~transaction;~~

code for receiving ~~information~~ an electronic record definition defining one or more fields ~~for the data identified in the database transaction to be stored in the~~ to include in electronic records automatically generated from data in the database transactions representative of the business event, the electronic record definition requiring the electronic records to have at least one electronic signature;

code for receiving information that maps data from underlying database tables associated with the database transactions to at least some of the one or more fields defined in the electronic record definition;

code for storing the electronic record definition in association with the business event based on the information that maps data from underlying database tables associated with the database transactions to at least some of the one or more fields defined in the electronic record definition;

code for detecting a database transaction between a database application and the database management system;

code for determining that the database transaction satisfies an occurrence condition of the business event in response to monitoring for the ~~application~~ business event that is triggered by the database transaction;

code for intercepting transaction data from the database transaction initiated between the one or more database applications and the database management system prior to the database management system committing the transaction to ~~[[the]]~~ a database of the database management system ~~based on the application event that is triggered by the database transaction;~~

code for creating an electronic record from the intercepted transaction data prior to the database management system committing the database transaction to the database according to the electronic record definition associated with the business event and the information that maps data from underlying database tables associated with the database transactions to the at least some of the one or more fields defined in the electronic record definition;

code for storing the electronic record separately from the transaction data from the database transaction;

code for executing a rule associated with the business event to determine whether an electronic signature is required to connote review of the electronic record created from the intercepted database transaction in order for the database management system to commit the database transaction to the database; and

code for requesting the electronic signature prior to the database management system committing the database transaction to the database based on a determination that that an electronic signature is required; and

code for committing the database transaction to the database in response to receiving the electronic signature.

20. (Canceled).

21. (Previously presented) The computer-readable storage medium of claim 19 wherein the electronic record is stored in a common repository of electronic records that provides an audit trail that cannot be altered or disabled by users of the system.

22. (Previously presented) The computer-readable storage medium of claim 21 wherein the electronic record comprises data in a character large object (CLOB) format.

23. (Previously presented) The computer-readable storage medium of claim 22 wherein the data comprises a well-formed XML document stored within a column of a table stored in the database.

24. (Previously presented) The computer-readable storage medium of claim 23 wherein fields of the electronic record are filled with the transaction data based on a predefined mapping of a DTD to multiple data sources.

25. (Previously presented) The computer-readable storage medium of claim 19 further comprising code for obtaining and verifying the electronic signature.

26. (Currently amended) A computer-implemented method of committing a transaction to a database, the method comprising:



3 communicating, to one or more destination computer systems, information  
4 configured for generating one or more user interfaces enabling users at the one or more  
5 destination computer systems to define business events;

6 receiving, at [[a]] one or more computer systems hosting a database management  
7 system that manages the database, a user-specified application business event via the one or  
8 more user interfaces that, upon occurrence, causes [[the]] a database management system to  
9 intercept database transactions before the database transactions are committed to databases  
10 provided by the database management system, the database transactions representative of the  
11 business event and instantiated between the one or more database applications and the database  
12 management system and generate from data identified in the database transaction an electronic  
13 record that requires an electronic signature;

14 receiving, at the one or more computer systems, information a user-specified data  
15 type definition (DTD) via the one or more user interfaces defining one or more fields for the data  
16 identified in the database transaction to be stored in the electronic records to include in XML  
17 documents automatically generated from data in the database transactions representative of the  
18 business event, the electronic record definition requiring the electronic records to have at least  
19 one electronic signature;

20 receiving, at the one or more computer systems, a user-specified XSL style sheet  
21 via the one or more user interfaces that defines layout settings for formatting and presenting the  
22 automatically generated XML documents;

23 receiving, at the one or more computer systems, information via the one or more  
24 user interfaces that maps data from underlying database tables associated with the database  
25 transaction to at least some of the one or more fields defined in the DTD;

26 storing in a storage device associated with the one or more computer systems, the  
27 DTD and the XSL style sheet in association with the business event based on the information  
28 that maps data from underlying database tables associated with the database transactions to at  
29 least some of the one or more fields defined in the DTD;

30 determining, with one or more processor associated with the one or more  
31 computer systems, that a database transaction between a database application and the database

32 management system satisfies an occurrence condition of the business event and intercepting  
33 transaction data at a computer system from [[a]] the database transaction prior to the database  
34 management system committing the database transaction to a database of the database  
35 management system initiated between a database application and the database management  
36 system in response to the user-created event monitored by the computer system that is triggered  
37 by the database transaction;

38 automatically creating, with the one or more processor associated with the one or  
39 more computer systems, an electronic record with the computer system prior to the database  
40 management system committing the associated database transaction to the database, wherein the  
41 electronic record comprises the intercepted transaction data prepared by the computer system  
42 using a set of XML mappings associated with the user-created-event and storing the electronic  
43 record as a well-formed XML document in a character large-object (CLOB) format of a column  
44 of a database table;

45 storing the electronic record in a common repository of electronic records that  
46 provides an audit trail that cannot be altered or deleted by users of the system;

47 executing a rule associated with the business event to determine whether an  
48 electronic signature is required to connote review of the XML document electronic record in  
49 order for the database management system to commit the database transaction to the database;

50 if execution of the rule results in a determination that an electronic signature is  
51 required, (i) displaying the transaction data in the XML document electronic record according to  
52 a predefined layout set forth in [[an]] the XSL style sheet associated with the business event  
53 electronic record and storing a copy of the transaction data as displayed in a character large-  
54 object (CLOB) format of a second column of the database table and (ii) requesting, obtaining and  
55 verifying the electronic signature prior to the database management system committing the  
56 transaction into a database; and

57 committing the transaction to the database in response to verifying the electronic  
58 signature.